

10/541222

## PATENT COOPERATION TREATY



From the  
INTERNATIONAL SEARCHING AUTHORITY

01 JUL 2005

PCT

To:

Mr. Masao OKABE

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WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing  
(day/month/year)

20.7.2004

Applicant's or agent's file reference

CFL00345WO

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/JP2004/004071

International filing date (day/month/year)

24.03.2004

Priority date (day/month/year)

26.03.2003

International Patent Classification (IPC) or both national classification and IPC

Int.Cl. H01M 4/38 H01M 4/02 H01M10/40

Applicant

CANON KABUSHIKI KAISHA

## 1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☒ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☒ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

## 2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

## 3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP

Japan Patent Office

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WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2004/004071

Box No. I      Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing  
☐ table(s) related to the sequence listing

b. format of material

- ☐ in written format  
☐ in computer readable form

c. time of filing/furnishing

- ☐ contained in the international application as filed.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

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International application No.

PCT/JP2004/ 004071

Box No. IV Lack of unity of invention

1. ☒ In response to the invitation (Form PCT/ISA/206) to pay additional fees the applicant has:
- ☒ paid additional fees
  - ☐ paid additional fees under protest
  - ☐ not paid additional fees
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose not to invite the applicant to pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rule 13.1, 13.2 and 13.3 is
- ☐ complied with
  - ☒ not complied with for the following reasons:

The separate inventions are not so linked as to form a single general inventive concept for the following reason:

The same or corresponding matters(A) between the inventions of claims Nos. 1-9,11-19 and claims Nos. 10-19 are "An electrode material for a lithium secondary battery, comprising particles having silicon as a main component."

However, after taking the prior art into consideration, it became apparent that the matters(A) were mentioned in a document JP 2001-273892 A (SANYO ELECTRIC CO., LTD.), 2001.10.05, the whole document. Therefore, the matters(A) makes no contribution over the prior art.

Consequently, there is no same or corresponding "special technical features" Therefore, there is no technical relationship between the inventions of claims Nos. 1-9,11-19 and claims Nos.10-19.

4. Consequently, this opinion has been established in respect of the following parts of the international application:
- ☒ all parts.
  - ☐ the parts relating to claims Nos. \_\_\_\_\_

WRITING OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY

International application No.

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	<u>2-3, 5, 7-12, 15, 19</u>	YES
	Claims	<u>1, 4, 6, 13-14, 16-18</u>	NO
Inventive step (IS)	Claims	<u>2-3, 5, 7-12, 15, 19</u>	YES
	Claims	<u>1, 4, 6, 13-14, 16-18</u>	NO
Industrial applicability (IA)	Claims	<u>1-19</u>	YES
	Claims		NO

2. Citations and explanations

D1: JP 2002-42805 A

Claim 1,4,6,13-14,16-18

The subject matter of claims 1,4,6,13-14 and 16-18 does not meet the requirement of novelty.

D1 discloses that;

An electrode material for non-aqueous electrolyte secondary battery comprises particles of solid state alloy having silicon as a main component, wherein the particles of the solid state alloy have an amorphous material comprising TiSi phase and Si phase.

The particles of the solid state alloy have an average particle diameter of  $0.8 \mu\text{m}$ .

A non-aqueous electrolyte secondary battery comprises an electrolyte, a positive electrode and a negative electrode using an electrode comprising the above electrode material, graphite as a conductive auxiliary material, a binder and a current collector.

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Box No. VI Certain documents cited

1. Certain published documents (Rules 43bis.1 and 70.10)

<u>Application No. Patent No.</u>	<u>Publication date (day/month/year)</u>	<u>Filing date (day/month/year)</u>	<u>Priority date (valid claim) (day/month/year)</u>
JP 2003-109590 A E, X	11.04.2003	28.09.2001	

2. Non-written disclosures (Rules 43bis.1 and 70.9)

<u>Kind of non-written disclosure</u>	<u>Date of non-written disclosure (day/month/year)</u>	<u>Date of written disclosure referring to non-written disclosure (day/month/year)</u>
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